



SEQUENCE LISTING

<110> Kopin, Alan S.

<120> Assays for Identifying Receptors Having
Alterations in Signaling

<130> 00398/512002

<140> US 09/966,871

<141> 2001-09-28

<150> US 60/236,302

<151> 2000-09-28

<150> US 60/288,644

<151> 2001-05-03

<160> 87

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 398

<212> PRT

<213> Homo sapiens

<400> 1

Met	Asp	Ser	Ser	Thr	Gly	Pro	Gly	Asn	Thr	Ser	Asp	Cys	Ser	Asp	Pro
1				5					10					15	
Leu	Ala	Gln	Ala	Ser	Cys	Ser	Pro	Ala	Pro	Gly	Ser	Trp	Leu	Asn	Leu
		20						25					30		
Ser	His	Val	Asp	Gly	Asn	Gln	Ser	Asp	Pro	Cys	Gly	Leu	Asn	Arg	Thr
		35					40					45			
Gly	Leu	Gly	Gly	Asn	Asp	Ser	Leu	Cys	Pro	Gln	Thr	Gly	Ser	Pro	Ser
	50					55				60					
Met	Val	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile	Val	Cys	Val
65				70						75					80
Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile	Val	Arg	Tyr
			85					90						95	
Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn	Leu	Ala	Leu
		100						105					110		
Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser	Val	Asn	Tyr
		115					120					125			
Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	Ile	Leu	Cys	Lys	Ile	Val	Ile
	130					135					140				
Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr	Leu	Cys	Thr
145					150					155					160
Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val	Lys	Ala	Leu
			165						170					175	
Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Val	Asn	Val	Cys	Asn	Trp
		180						185					190		
Ile	Leu	Ser	Ser	Ala	Ile	Gly	Leu	Pro	Val	Met	Phe	Met	Ala	Thr	Thr
	195					200						205			
Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	Thr	Leu	Thr	Phe	Ser	His	Pro
	210					215					220				
Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	Ile	Cys	Val	Phe	Ile	Phe	Ala

Asn Glu Asp Asp Ala Ser Lys Val Leu Gly Ile
1 5 10

<210> 6
<211> 11
<212> PRT
<213> Homo sapiens

<400> 6
Phe Ala Ile Val Gly Asn Ile Leu Val Ile Leu
1 5 10

<210> 7
<211> 11
<212> PRT
<213> Homo sapiens

<400> 7
Cys Ala Ile Ser Ile Asp Arg Tyr Ile Gly Val
1 5 10

<210> 8
<211> 11
<212> PRT
<213> Homo sapiens

<400> 8
Cys Ala Ile Ser Ile Asp Arg Tyr Ile Gly Val
1 5 10

<210> 9
<211> 11
<212> PRT
<213> Homo sapiens

<400> 9
Ala Val Asp Val Leu Cys Cys Thr Ala Ser Ile
1 5 10

<210> 10
<211> 11
<212> PRT
<213> Homo sapiens

<400> 10
Arg Glu Lys Lys Ala Ala Lys Thr Leu Gly Ile
1 5 10

<210> 11
<211> 12
<212> PRT
<213> Homo sapiens

<400> 11
Glu Glu Pro Phe Tyr Ala Leu Phe Ser Ser Leu Gly
1 5 10

<210> 12
<211> 9
<212> PRT
<213> Homo sapiens

<400> 12
Ser Arg Glu Lys Lys Ala Ala Lys Thr
1 5

<210> 13
<211> 14
<212> PRT
<213> Homo sapiens

<400> 13
Lys Phe Ser Arg Glu Lys Lys Ala Ala Lys Thr Leu Gly Ile
1 5 10

<210> 14
<211> 10
<212> PRT
<213> Homo sapiens

<400> 14
Glu Lys Arg Phe Thr Phe Val Leu Ala Val
1 5 10

<210> 15
<211> 13
<212> PRT
<213> Homo sapiens

<400> 15
Ser Leu Val Lys Glu Lys Lys Ala Ala Arg Thr Leu Ser
1 5 10

<210> 16
<211> 10
<212> PRT
<213> Homo sapiens

<400> 16
Lys Lys Val Thr Arg Thr Ile Leu Ala Ala
1 5 10

<210> 17
<211> 13
<212> PRT
<213> Homo sapiens

<400> 17
 Thr Trp Thr Pro Tyr Asn Ile Met Val Leu Val Asn Thr
 1 5 10

<210> 18
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 18
 Ala Ile Leu Leu Ala Phe Ile Ile Thr Trp Thr Pro Tyr Asn Ile Met
 1 5 10 15
 Val Leu Val Ser Thr
 20

<210> 19
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 19
 Tyr Asn Ile Met Val Leu Val Ser Thr Phe Cys Asp Lys Cys Val
 1 5 10 15

<210> 20
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 20
 Arg Lys Ala Phe Gln Gly Leu Leu Cys Cys Ala
 1 5 10

<210> 21
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 21
 Phe Cys Leu Lys Glu His Lys Ala Leu Lys Thr Leu Gly Ile
 1 5 10

<210> 22
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 22
 Ser Phe Lys Met Ser Phe Lys Arg Glu Thr Lys Val Leu Lys Thr
 1 5 10 15

<210> 23
 <211> 15

<212> PRT
 <213> Homo sapiens
 <400> 23
 Ala Pro Asp Thr Ser Ile Lys Lys Glu Thr Lys Val Leu Lys Thr
 1 5 10 15

<210> 24
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 24
 Phe Val Cys Cys Trp Leu Pro Phe Phe Ile Leu
 1 5 10

<210> 25
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 25
 Phe Met Ile Ser Leu Asp Arg Tyr Cys Ala Val
 1 5 10

<210> 26
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 26
 Phe Met Val Leu Gly Gly Phe Thr Ser Thr Leu Tyr
 1 5 10

<210> 27
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 27
 Gly Cys Asn Leu Glu Gly Phe Phe Ala Thr
 1 5 10

<210> 28
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Thr Ile Pro Ala Phe Phe Ala Lys Ser Ala Ala Ile Tyr
 1 5 10

<210> 29

<211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 29
 Val Val Leu Ala Ile Glu Arg Tyr Val Val Val
 1 5 10

 <210> 30
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 30
 Arg Met Val Ile Ile Met Val Ile Ala Phe Leu
 1 5 10

 <210> 31
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 31
 Pro Ala Phe Phe Ala Lys Ser Ala Ala Ile Tyr
 1 5 10

 <210> 32
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 32
 Val Val Leu Ala Ile Glu Arg Tyr Val Val Val
 1 5 10

 <210> 33
 <211> 10
 <212> PRT
 <213> Homo sapiens

 <400> 33
 Phe Arg Lys Leu Cys Asn Cys Lys Gln Lys
 1 5 10

 <210> 34
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 34
 Ala Ile Ile Ser Met Asn Leu Tyr Ser Ser Ile
 1 5 10

<210> 35
<211> 12
<212> PRT
<213> Homo sapiens

<400> 35
Leu Leu Phe Ile Ile Cys Trp Leu Pro Phe Gln Ile
1 5 10

<210> 36
<211> 11
<212> PRT
<213> Homo sapiens

<400> 36
Ala Ser Val Ser Phe Asn Leu Tyr Ala Ser Val
1 5 10

<210> 37
<211> 11
<212> PRT
<213> Homo sapiens

<400> 37
Leu Phe Tyr Gly Phe Leu Gly Lys Lys Phe Lys
1 5 10

<210> 38
<211> 25
<212> PRT
<213> Homo sapiens

<400> 38
Leu Val Ile Trp Val Ala Gly Phe Arg Met Thr His Thr Val Thr Thr
1 5 10 15
Ile Ser Tyr Leu Asn Lys Ala Val Ala
20 25

<210> 39
<211> 25
<212> PRT
<213> Homo sapiens

<400> 39
Leu Val Val Trp Val Thr Ala Phe Glu Ala Lys Arg Thr Ile Asn Ala
1 5 10 15
Ile Trp Phe Leu Asn Leu Ala Val Ala
20 25

<210> 40
<211> 13
<212> PRT
<213> Homo sapiens

<400> 40
Ala Cys Ile Ser Val Asp Arg Tyr Leu Ala Ile Val His
1 5 10

<210> 41
<211> 12
<212> PRT
<213> Homo sapiens

<400> 41
Met Ala Thr Asn Lys Asp Thr Lys Ile Ala Lys Lys
1 5 10

<210> 42
<211> 11
<212> PRT
<213> Homo sapiens

<400> 42
Ile Leu Ile Phe Thr Asp Phe Thr Cys Met Ala
1 5 10

<210> 43
<211> 17
<212> PRT
<213> Homo sapiens

<400> 43
Lys Ile Ala Lys Lys Met Ala Ile Leu Ile Phe Thr Asp Phe Thr Cys
1 5 10 15
Met

<210> 44
<211> 11
<212> PRT
<213> Homo sapiens

<400> 44
Ile Leu Ile Phe Thr Asp Phe Thr Cys Met Ala
1 5 10

<210> 45
<211> 11
<212> PRT
<213> Homo sapiens

<400> 45
Lys Val Leu Ser Ile Asp Tyr Tyr Asn Met Phe
1 5 10

<210> 46
<211> 11

<212> PRT
<213> Homo sapiens

<400> 46
Leu Met Ser Leu Asp Arg Cys Leu Ala Ile Cys
1 5 10

<210> 47
<211> 16
<212> PRT
<213> Homo sapiens

<400> 47
Glu Val Lys Arg Arg Ala Leu Trp Met Val Cys Thr Val Leu Ala Val
1 5 10 15

<210> 48
<211> 11
<212> PRT
<213> Homo sapiens

<400> 48
Cys Leu Phe Phe Ile Asn Thr Tyr Cys Ser Val
1 5 10

<210> 49
<211> 9
<212> PRT
<213> Homo sapiens

<400> 49
Phe Cys Gln Glu Glu Phe Trp Gly Asn
1 5

<210> 50
<211> 18
<212> PRT
<213> Homo sapiens

<400> 50
Phe Cys Gln Met Arg Lys Arg Arg Leu Arg Glu Gln Glu Glu Phe Trp
1 5 10 15
Gly Asn

<210> 51
<211> 14
<212> PRT
<213> Homo sapiens

<400> 51
Lys Ile Leu Leu Arg Lys Phe Cys Gln Ile Arg Asp His Thr
1 5 10

<210> 52
 <211> 17
 <212> PRT
 <213> Homo sapiens

 <400> 52
 Cys His Asp Val Leu Asn Glu Thr Leu Leu Glu Gly Tyr Tyr Ala Tyr
 1 5 10 15
 Tyr

<210> 53
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 53
 Tyr Tyr Asn His Ala Ile Asp Trp Gln Thr Gly
 1 5 10

<210> 54
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 54
 Tyr Ala Lys Val Ser Ile Cys Leu Pro Met Asp
 1 5 10

<210> 55
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 55
 Ala Ser Glu Leu Ser Val Tyr Thr Leu Thr Val
 1 5 10

<210> 56
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 56
 Tyr Pro Leu Asn Ser Cys Ala Asn Pro Phe Leu
 1 5 10

<210> 57
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 57
 Val Ala Phe Val Ile Val Cys Cys Cys His Val

1 5 10

 <210> 58
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 58
 Cys Ala Asn Pro Phe Leu Tyr Ala Ile Phe Thr
 1 5 10

 <210> 59
 <211> 17
 <212> PRT
 <213> Homo sapiens

 <400> 59
 Val Arg Asn Pro Gln Tyr Asn Pro Gly Asp Lys Asp Thr Lys Ile Ala
 1 5 10 15
 Lys

 <210> 60
 <211> 20
 <212> PRT
 <213> Homo sapiens

 <400> 60
 Lys Asp Thr Lys Ile Ala Lys Arg Met Ala Val Leu Ile Phe Thr Asp
 1 5 10 15
 Phe Ile Cys Met
 20

 <210> 61
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 61
 Leu Ala Met Thr Leu Asp Arg His Arg Ala Ile
 1 5 10

 <210> 62
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 62
 Thr Arg Asn Tyr Ile His Met His Leu Phe Leu
 1 5 10

 <210> 63
 <211> 11

<212> PRT
 <213> Homo sapiens

 <400> 63
 Lys Leu Leu Lys Ser Thr Leu Val Leu Met Pro
 1 5 10

 <210> 64
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 64
 Val Phe Ala Pro Val Thr Glu Glu Gln Ala Arg
 1 5 10

 <210> 65
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 65
 Thr Arg Asn Tyr Ile His Gly Asn Leu Phe Ala
 1 5 10

 <210> 66
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <400> 66
 Arg Leu Ala Arg Ser Thr Leu Thr Leu Ile Pro
 1 5 10

 <210> 67
 <211> 10
 <212> PRT
 <213> Homo sapiens

 <400> 67
 Arg Asn Tyr Ile His Met His Leu Phe Ile
 1 5 10

 <210> 68
 <211> 10
 <212> PRT
 <213> Homo sapiens

 <400> 68
 Leu Ala Arg Ser Thr Leu Leu Leu Ile Pro
 1 5 10

 <210> 69

<211> 25
<212> PRT
<213> Homo sapiens

<400> 69
Thr Leu Ser Phe Val Ala Gln Asn Lys Ile Asp Ser Leu Asn Leu Asp
1 5 10 15
Glu Phe Cys Asn Cys Ser Glu His Ile
20 25

<210> 70
<211> 11
<212> PRT
<213> Homo sapiens

<400> 70
Pro Leu Ser Ala Tyr Gln Ile Tyr Leu Gly Thr
1 5 10

<210> 71
<211> 11
<212> PRT
<213> Homo sapiens

<400> 71
Gln Ser Leu Leu Val Pro Ser Ile Ile Phe Ile
1 5 10

<210> 72
<211> 14
<212> PRT
<213> Homo sapiens

<400> 72
Met Ser Phe Val Leu Val Val Lys Leu Ile Leu Ala Ile Arg
1 5 10

<210> 73
<211> 15
<212> PRT
<213> Homo sapiens

<400> 73
Asp Ser Phe His Ile Leu Leu Ile Met Ser Cys Gln Ser Leu Leu
1 5 10 15

<210> 74
<211> 11
<212> PRT
<213> Homo sapiens

<400> 74
Asp Val Arg Asp Ile Leu His Cys Thr Asn Ser
1 5 10

<210> 75
 <211> 16
 <212> PRT
 <213> Homo sapiens

<400> 75
 Leu Ile Met Ser Cys Gln Ser Leu Leu Val Pro Ser Ile Ile Phe Ile
 1 5 10 15

<210> 76
 <211> 376
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Glu Ser Pro Phe Arg Gly Glu Pro Gly Pro Thr Cys Ala Pro Ser
 1 5 10 15
 Ala Cys Leu Pro Pro Asn Ser Ser Ala Trp Phe Pro Gly Trp Ala Glu
 20 25 30
 Pro Ser Asn Gly Ser Ala Gly Ser Glu Asp Ala Gln Leu Glu Pro Ala
 35 40 45
 His Ile Ser Pro Ala Asp Pro Val Glu Ile Thr Ala Val Tyr Ser Val
 50 55 60
 Val Phe Val Val Gly Leu Val Gly Asn Ser Leu Val Met Phe Val Ile
 65 70 75 80
 Ile Arg Tyr Thr Lys Met Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn
 85 90 95
 Leu Ala Leu Ala Asp Ala Leu Val Thr Thr Thr Met Pro Phe Gln Ser
 100 105 110
 Thr Val Tyr Leu Met Asn Ser Trp Pro Phe Gly Asp Val Leu Cys Lys
 115 120 125
 Ile Val Ile Ser Ile Asp Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr
 130 135 140
 Leu Thr Met Met Ser Val Asp Arg Tyr Ile Ala Val Cys His Pro Val
 145 150 155 160
 Lys Ala Leu Asp Phe Arg Thr Pro Leu Lys Ala Lys Ile Ile Asn Ile
 165 170 175
 Cys Ile Trp Leu Leu Ser Ser Ser Val Gly Ile Ser Ala Ile Val Leu
 180 185 190
 Gly Gly Thr Lys Val Arg Glu Asp Val Asp Val Ile Glu Cys Ser Leu
 195 200 205
 Gln Phe Pro Asp Asp Asp Tyr Ser Trp Trp Asp Leu Phe Met Lys Ile
 210 215 220
 Cys Val Phe Ile Phe Ala Phe Val Ile Pro Val Leu Ile Ile Ile Val
 225 230 235 240
 Cys Tyr Thr Leu Met Ile Leu Arg Leu Lys Ser Val Arg Leu Leu Ser
 245 250 255
 Gly Ser Arg Glu Lys Asp Arg Asn Leu Arg Arg Ile Thr Arg Leu Val
 260 265 270
 Leu Val Val Val Ala Val Phe Val Val Cys Trp Thr Pro Ile His Ile
 275 280 285
 Phe Ile Leu Val Glu Ala Leu Gly Ser Thr Ser His Ser Thr Ala Ala
 290 295 300
 Leu Ser Ser Tyr Tyr Phe Cys Ile Ala Leu Gly Tyr Thr Asn Ser Ser
 305 310 315 320
 Leu Asn Pro Ile Leu Tyr Ala Phe Leu Asp Glu Asn Phe Lys Arg Cys
 325 330 335

Phe	Arg	Asp	Phe	Cys	Phe	Pro	Leu	Lys	Met	Arg	Met	Glu	Arg	Gln	Ser
			340					345					350		
Thr	Ser	Arg	Val	Arg	Asn	Thr	Val	Gln	Asp	Pro	Ala	Tyr	Leu	Arg	Asp
		355					360					365			
Ile	Asp	Gly	Met	Asn	Lys	Pro	Val								
	370					375									

<210> 77
 <211> 380
 <212> PRT
 <213> Homo sapiens

<400> 77

Met	Glu	Ser	Pro	Ile	Gln	Ile	Phe	Arg	Gly	Glu	Pro	Gly	Pro	Thr	Cys
1				5					10					15	
Ala	Pro	Ser	Ala	Cys	Leu	Leu	Pro	Asn	Ser	Ser	Ser	Trp	Phe	Pro	Asn
			20					25					30		
Trp	Ala	Glu	Ser	Asp	Ser	Asn	Gly	Ser	Val	Gly	Ser	Glu	Asp	Gln	Gln
	35						40					45			
Leu	Glu	Pro	Ala	His	Ile	Ser	Pro	Ala	Ile	Pro	Val	Ile	Ile	Thr	Ala
	50					55					60				
Val	Tyr	Ser	Val	Val	Phe	Val	Val	Gly	Leu	Val	Gly	Asn	Ser	Leu	Val
65					70					75					80
Met	Phe	Val	Ile	Ile	Arg	Tyr	Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile
				85					90					95	
Tyr	Ile	Phe	Asn	Leu	Ala	Leu	Ala	Asp	Ala	Leu	Val	Thr	Thr	Thr	Met
			100					105					110		
Pro	Phe	Gln	Ser	Ala	Val	Tyr	Leu	Met	Asn	Ser	Trp	Pro	Phe	Gly	Asp
		115					120					125			
Val	Leu	Cys	Lys	Ile	Val	Ile	Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr
	130					135					140				
Ser	Ile	Phe	Thr	Leu	Thr	Met	Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val
145					150					155					160
Cys	His	Pro	Val	Lys	Ala	Leu	Asp	Phe	Arg	Thr	Pro	Leu	Lys	Ala	Lys
				165					170					175	
Ile	Ile	Asn	Ile	Cys	Ile	Trp	Ile	Leu	Ala	Ser	Ser	Val	Gly	Ile	Ser
		180						185					190		
Ala	Ile	Val	Leu	Gly	Gly	Thr	Lys	Val	Arg	Glu	Asp	Val	Asp	Val	Ile
		195					200					205			
Glu	Cys	Ser	Leu	Gln	Phe	Pro	Asp	Asp	Glu	Tyr	Ser	Trp	Trp	Asp	Leu
	210					215					220				
Phe	Met	Lys	Ile	Cys	Val	Phe	Val	Phe	Ala	Phe	Val	Ile	Pro	Val	Leu
225					230					235					240
Ile	Ile	Ile	Val	Cys	Tyr	Thr	Leu	Met	Ile	Leu	Arg	Leu	Lys	Ser	Val
				245					250					255	
Arg	Leu	Leu	Ser	Gly	Ser	Arg	Glu	Lys	Asp	Arg	Asn	Leu	Arg	Arg	Ile
			260					265					270		
Thr	Lys	Ile	Val	Leu	Val	Val	Val	Ala	Val	Phe	Ile	Ile	Cys	Trp	Thr
		275					280					285			
Pro	Ile	His	Ile	Phe	Ile	Leu	Val	Glu	Ala	Leu	Gly	Ser	Thr	Ser	His
	290					295					300				
Ser	Thr	Ala	Val	Leu	Ser	Tyr	Tyr	Phe	Cys	Ile	Ala	Leu	Gly	Tyr	
305					310					315					320
Thr	Asn	Ser	Ser	Leu	Asn	Pro	Val	Leu	Tyr	Ala	Phe	Leu	Asp	Glu	Asn
				325					330					335	
Phe	Lys	Arg	Cys	Phe	Arg	Asp	Phe	Cys	Phe	Pro	Ile	Lys	Met	Arg	Met
			340					345					350		
Glu	Arg	Gln	Ser	Thr	Asn	Arg	Val	Arg	Asn	Thr	Val	Gln	Asp	Pro	Ala

	355		360		365
Ser	Met	Arg	Asp	Val	Gly
	370				375
					380

<210> 78
 <211> 400
 <212> PRT
 <213> Homo sapiens

<400> 78

Met	Asp	Ser	Ser	Ala	Ala	Pro	Thr	Asn	Ala	Ser	Asn	Cys	Thr	Asp	Ala
1				5					10					15	
Leu	Ala	Tyr	Ser	Ser	Cys	Ser	Pro	Ala	Pro	Ser	Pro	Gly	Ser	Trp	Val
			20					25					30		
Asn	Leu	Ser	His	Leu	Asp	Gly	Asn	Leu	Ser	Asp	Pro	Cys	Gly	Pro	Asn
		35					40					45			
Arg	Thr	Asp	Leu	Gly	Gly	Arg	Asp	Ser	Leu	Cys	Pro	Pro	Thr	Gly	Ser
	50					55					60				
Pro	Ser	Met	Ile	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile	Val
65					70					75					80
Cys	Val	Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile	Val
				85					90					95	
Arg	Tyr	Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn	Leu
			100					105					110		
Ala	Leu	Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser	Val
		115					120					125			
Asn	Tyr	Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	Ile	Leu	Cys	Lys	Ile
	130					135					140				
Val	Ile	Ser	Ile	Asp	Tyr	Trp	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr	Leu
145				150						155					160
Cys	Thr	Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val	Lys
			165						170					175	
Ala	Leu	Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Ile	Asn	Val	Cys
			180					185					190		
Asn	Trp	Ile	Leu	Ser	Ser	Ala	Ile	Gly	Ile	Pro	Val	Met	Phe	Met	Ala
	195					200						205			
Thr	Thr	Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	Thr	Leu	Thr	Phe	Ser
	210				215						220				
His	Pro	Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Asp	Lys	Ile	Cys	Val	Phe	Ile
225					230					235					240
Phe	Ala	Phe	Ile	Met	Pro	Val	Leu	Ile	Ile	Thr	Val	Cys	Tyr	Gly	Leu
			245						250					255	
Met	Ile	Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	Ser	Gly	Ser	Lys	Glu
		260						265				270			
Lys	Asp	Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	Val	Leu	Val	Val	Val
		275					280					285			
Ala	Val	Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	Ile	Tyr	Val	Ile	Ile
	290					295					300				
Lys	Ala	Leu	Val	Thr	Ile	Pro	Glu	Thr	Thr	Phe	Gln	Thr	Val	Ser	Trp
305					310					315					320
His	Phe	Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	Cys	Leu	Asn	Pro	Val
			325						330					335	
Leu	Tyr	Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	Cys	Phe	Arg	Glu	Phe
		340						345				350			
Cys	Ile	Pro	Thr	Ser	Ser	Asn	Ile	Glu	Gln	Gln	Asn	Ser	Thr	Arg	Ile
		355					360					365			
Arg	Gln	Asn	Thr	Arg	Asp	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg
	370					375						380			

Thr	Asn	His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	Thr	Ala	Pro	Leu	Pro
385					390					395					400

<210> 79
 <211> 398
 <212> PRT
 <213> Homo sapiens

<400> 79															
Met	Asp	Ser	Ser	Thr	Gly	Pro	Gly	Asn	Thr	Ser	Asp	Cys	Ser	Asp	Pro
1				5					10					15	
Leu	Ala	Gln	Ala	Ser	Cys	Ser	Pro	Ala	Pro	Gly	Ser	Trp	Leu	Asn	Leu
			20					25					30		
Ser	His	Val	Asp	Gly	Asn	Gln	Ser	Asp	Pro	Cys	Gly	Leu	Asn	Arg	Thr
		35					40					45			
Gly	Leu	Gly	Gly	Asn	Asp	Ser	Leu	Cys	Pro	Gln	Thr	Gly	Ser	Pro	Ser
	50					55					60				
Met	Val	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile	Val	Cys	Val
65					70					75					80
Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile	Val	Arg	Tyr
				85					90					95	
Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn	Leu	Ala	Leu
			100					105					110		
Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser	Val	Asn	Tyr
		115					120					125			
Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	Ile	Leu	Cys	Lys	Ile	Val	Ile
	130					135					140				
Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr	Leu	Cys	Thr
145					150					155					160
Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val	Lys	Ala	Leu
			165						170					175	
Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Val	Asn	Val	Cys	Asn	Trp
			180					185					190		
Ile	Leu	Ser	Ser	Ala	Ile	Gly	Ile	Pro	Val	Met	Phe	Met	Ala	Thr	Thr
		195					200					205			
Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	Thr	Leu	Thr	Phe	Ser	His	Pro
	210					215					220				
Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	Ile	Cys	Val	Phe	Ile	Phe	Ala
225				230						235					240
Phe	Ile	Met	Pro	Val	Leu	Ile	Ile	Thr	Val	Cys	Tyr	Gly	Leu	Met	Ile
			245						250					255	
Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	Ser	Gly	Ser	Lys	Glu	Lys	Asp
			260					265					270		
Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	Val	Leu	Val	Val	Val	Ala	Val
		275					280						285		
Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	Ile	Tyr	Val	Ile	Ile	Lys	Ala
	290					295					300				
Leu	Ile	Thr	Ile	Pro	Glu	Thr	Thr	Phe	Gln	Thr	Val	Ser	Trp	His	Phe
305					310					315					320
Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	Cys	Leu	Asn	Pro	Val	Leu	Tyr
			325						330					335	
Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	Cys	Phe	Arg	Glu	Phe	Cys	Ile
			340					345					350		
Pro	Thr	Ser	Ser	Thr	Ile	Glu	Gln	Asn	Ser	Thr	Arg	Val	Arg	Gln	
		355				360					365				
Asn	Thr	Arg	Glu	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg	Thr	Asn
	370					375					380				
His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	Thr	Ala	Pro	Leu	Pro		

385

390

395

<210> 80

<211> 372

<212> PRT

<213> Homo sapiens

<400> 80

```

Met Glu Pro Ala Pro Ser Ala Gly Ala Glu Leu Gln Pro Pro Leu Phe
 1      5      10      15
Ala Asn Ala Ser Asp Ala Tyr Pro Ser Ala Cys Pro Ser Ala Gly Ala
 20      25      30
Asn Ala Ser Gly Pro Pro Gly Ala Arg Ser Ala Ser Ser Leu Ala Leu
 35      40      45
Ala Ile Ala Ile Thr Ala Leu Tyr Ser Ala Val Cys Ala Val Gly Leu
 50      55      60
Leu Gly Asn Val Leu Val Met Phe Gly Ile Val Arg Tyr Thr Lys Met
 65      70      75
Lys Thr Ala Thr Asn Ile Tyr Ile Phe Asn Leu Ala Leu Ala Asp Ala
 85      90      95
Leu Ala Thr Ser Thr Leu Pro Phe Gln Ser Ala Lys Tyr Leu Met Glu
100     105     110
Thr Trp Pro Phe Gly Glu Leu Leu Cys Lys Ala Val Ile Ser Ile Asp
115     120     125
Tyr Tyr Asn Met Phe Thr Ser Ile Phe Thr Leu Thr Met Met Ser Val
130     135     140
Asp Arg Tyr Ile Ala Val Cys His Pro Val Lys Ala Leu Asp Phe Arg
145     150     155
Thr Pro Ala Lys Ala Lys Ile Ile Asn Ile Cys Ile Trp Val Leu Ala
165     170     175
Ser Gly Val Gly Val Pro Ile Met Val Met Ala Val Thr Arg Pro Arg
180     185     190
Asp Gly Ala Val Val Cys Met Leu Gln Phe Pro Ser Pro Ser Trp Tyr
195     200     205
Trp Asp Thr Val Thr Lys Ile Cys Val Phe Leu Phe Ala Phe Val Val
210     215     220
Pro Ile Leu Ile Ile Thr Val Cys Tyr Gly Leu Met Leu Leu Arg Leu
225     230     235
Arg Ser Val Arg Leu Leu Ser Gly Ser Lys Glu Lys Asp Arg Ser Leu
245     250     255
Arg Arg Ile Thr Arg Met Val Leu Val Val Val Gly Ala Phe Val Val
260     265     270
Cys Trp Ala Pro Ile His Ile Phe Val Ile Val Trp Thr Leu Val Asp
275     280     285
Ile Asp Arg Arg Asp Pro Leu Val Val Ala Ala Leu His Leu Cys Ile
290     295     300
Ala Leu Gly Tyr Ala Asn Ser Ser Leu Asn Pro Val Leu Tyr Ala Phe
305     310     315
Leu Asp Glu Asn Phe Lys Arg Cys Phe Arg Gln Leu Cys Arg Lys Pro
325     330     335
Cys Gly Arg Pro Asp Pro Ser Ser Phe Ser Arg Ala Arg Glu Ala Thr
340     345     350
Ala Arg Glu Arg Val Thr Ala Cys Thr Pro Ser Asp Gly Pro Gly Gly
355     360     365
Gly Ala Ala Ala
370

```

<210> 81
 <211> 359
 <212> PRT
 <213> Homo sapiens

<400> 81
 Met Ala Leu Asn Ser Ser Ala Glu Asp Gly Ile Lys Arg Ile Gln Asp
 1 5 10 15
 Asp Cys Pro Lys Ala Gly Arg His Ser Tyr Ile Phe Val Met Ile Pro
 20 25 30
 Thr Leu Tyr Ser Ile Ile Phe Val Gly Ile Phe Gly Asn Ser Leu
 35 40 45
 Val Val Ile Val Ile Tyr Phe Tyr Met Lys Leu Lys Thr Val Ala Ser
 50 55 60
 Val Phe Leu Leu Asn Leu Ala Leu Ala Asp Leu Cys Phe Leu Leu Thr
 65 70 75 80
 Leu Pro Leu Trp Ala Val Tyr Thr Ala Met Glu Tyr Arg Trp Pro Phe
 85 90 95
 Gly Asn His Leu Cys Lys Ile Ala Ser Ala Ser Val Thr Glu Asn Leu
 100 105 110
 Tyr Ala Ser Val Phe Leu Leu Thr Cys Leu Ser Ile Asp Arg Tyr Leu
 115 120 125
 Ala Ile Val His Pro Met Lys Ser Arg Leu Arg Arg Thr Met Leu Val
 130 135 140
 Ala Lys Val Thr Cys Ile Ile Ile Trp Leu Met Ala Gly Leu Ala Ser
 145 150 155 160
 Leu Pro Ala Val Ile His Arg Asn Val Tyr Phe Ile Glu Asn Thr Asn
 165 170 175
 Ile Thr Val Cys Ala Phe His Tyr Glu Ser Arg Asn Ser Thr Leu Pro
 180 185 190
 Ile Gly Leu Gly Leu Thr Lys Asn Ile Leu Gly Phe Leu Phe Pro Phe
 195 200 205
 Leu Ile Ile Ile Thr Ser Tyr Thr Leu Ile Trp Lys Ala Leu Lys Lys
 210 215 220
 Ala Tyr Glu Ile Gln Lys Asn Lys Pro Arg Asn Asp Asp Ile Phe Arg
 225 230 235 240
 Ile Ile Met Ala Ile Val Leu Phe Phe Phe Ser Trp Val Pro His
 245 250 255
 Gln Ile Phe Thr Phe Leu Asp Val Leu Ile Gln Leu Gly Val Ile His
 260 265 270
 Asp Cys Lys Ile Ser Asp Ile Val Asp Thr Ala Met Pro Ile Thr Ile
 275 280 285
 Cys Ile Ala Tyr Phe Asn Asn Cys Leu Asn Pro Leu Phe Tyr Gly Phe
 290 295 300
 Leu Gly Lys Lys Phe Lys Lys Tyr Phe Leu Gln Leu Leu Lys Tyr Ile
 305 310 315 320
 Pro Pro Lys Ala Lys Ser His Ser Ser Leu Ser Thr Lys Met Ser Thr
 325 330 335
 Leu Ser Tyr Arg Pro Ser Asp Asn Met Ser Ser Ser Ala Lys Lys Pro
 340 345 350
 Ala Ser Cys Phe Glu Val Glu
 355

<210> 82
 <211> 391
 <212> PRT
 <213> Homo sapiens

<400> 82

Met	Phe	Ser	Pro	Trp	Lys	Ile	Ser	Met	Phe	Leu	Ser	Val	Arg	Glu	Asp
1				5					10					15	
Ser	Val	Pro	Thr	Thr	Ala	Ser	Phe	Ser	Ala	Asp	Met	Leu	Asn	Val	Thr
			20					25					30		
Leu	Gln	Gly	Pro	Thr	Leu	Asn	Gly	Thr	Phe	Ala	Gln	Ser	Lys	Cys	Pro
		35					40					45			
Gln	Val	Glu	Trp	Leu	Gly	Trp	Leu	Asn	Thr	Ile	Gln	Pro	Pro	Phe	Leu
	50				55						60				
Trp	Val	Ile	Phe	Val	Leu	Ala	Thr	Leu	Glu	Asn	Ile	Phe	Val	Leu	Ser
65					70					75					80
Val	Phe	Cys	Leu	His	Lys	Ser	Ser	Cys	Thr	Val	Ala	Glu	Ile	Tyr	Leu
				85					90					95	
Gly	Asn	Leu	Ala	Ala	Ala	Asp	Leu	Ile	Leu	Ala	Cys	Gly	Leu	Pro	Phe
			100					105					110		
Trp	Ala	Ile	Thr	Ile	Ser	Asn	Asn	Phe	Asp	Trp	Leu	Phe	Gly	Glu	Thr
		115					120					125			
Leu	Cys	Arg	Val	Val	Asn	Ala	Ile	Ile	Ser	Met	Asn	Leu	Tyr	Ser	Ser
	130					135					140				
Ile	Cys	Phe	Leu	Met	Leu	Val	Ser	Ile	Asp	Arg	Tyr	Leu	Ala	Leu	Val
145					150					155					160
Lys	Thr	Met	Ser	Met	Gly	Arg	Met	Arg	Gly	Val	Arg	Trp	Ala	Lys	Leu
				165					170					175	
Tyr	Ser	Leu	Val	Ile	Trp	Gly	Cys	Thr	Leu	Leu	Leu	Ser	Ser	Pro	Met
		180						185					190		
Leu	Val	Phe	Arg	Thr	Met	Lys	Glu	Tyr	Ser	Asp	Glu	Gly	His	Asn	Val
	195						200					205			
Thr	Ala	Cys	Val	Ile	Ser	Tyr	Pro	Ser	Leu	Ile	Trp	Glu	Val	Phe	Thr
	210					215					220				
Asn	Met	Leu	Leu	Asn	Val	Val	Gly	Phe	Leu	Leu	Pro	Leu	Ser	Val	Ile
225				230						235					240
Thr	Phe	Cys	Thr	Met	Gln	Ile	Met	Gln	Val	Leu	Arg	Asn	Asn	Glu	Met
			245						250					255	
Gln	Lys	Phe	Lys	Glu	Ile	Gln	Thr	Glu	Arg	Arg	Ala	Thr	Val	Leu	Val
		260						265					270		
Leu	Val	Val	Leu	Leu	Leu	Phe	Ile	Ile	Cys	Trp	Leu	Pro	Phe	Gln	Ile
	275						280					285			
Ser	Thr	Phe	Leu	Asp	Thr	Leu	His	Arg	Leu	Gly	Ile	Leu	Ser	Ser	Cys
	290					295					300				
Gln	Asp	Glu	Arg	Ile	Ile	Asp	Val	Ile	Thr	Gln	Ile	Ala	Ser	Phe	Met
305				310						315					320
Ala	Tyr	Ser	Asn	Ser	Cys	Leu	Asn	Pro	Leu	Val	Tyr	Val	Ile	Val	Gly
			325						330					335	
Lys	Arg	Phe	Arg	Lys	Lys	Ser	Trp	Glu	Val	Tyr	Gln	Gly	Val	Cys	Gln
		340						345					350		
Lys	Gly	Gly	Cys	Arg	Ser	Glu	Pro	Ile	Gln	Met	Glu	Asn	Ser	Met	Gly
	355					360						365			
Thr	Leu	Arg	Thr	Ser	Ile	Ser	Val	Glu	Arg	Gln	Ile	His	Lys	Leu	Gln
	370					375					380				
Asp	Trp	Ala	Gly	Ser	Arg	Gln									
385					390										

<210> 83

<211> 398

<212> PRT

<213> Homo sapiens

<400> 83

Met	Asp	Ser	Ser	Ala	Gly	Pro	Gly	Asn	Ile	Ser	Asp	Cys	Ser	Asp	Pro
1				5					10					15	
Leu	Ala	Pro	Ala	Ser	Cys	Ser	Pro	Ala	Pro	Gly	Ser	Trp	Leu	Asn	Leu
			20					25					30		
Ser	His	Val	Asp	Gly	Asn	Gln	Ser	Asp	Pro	Cys	Gly	Pro	Asn	Arg	Thr
		35					40					45			
Gly	Leu	Gly	Gly	Ser	His	Ser	Leu	Cys	Pro	Gln	Thr	Gly	Ser	Pro	Ser
	50					55					60				
Met	Val	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile	Val	Cys	Val
65					70					75					80
Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile	Val	Arg	Tyr
				85					90					95	
Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn	Leu	Ala	Leu
			100					105					110		
Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser	Val	Asn	Tyr
		115					120					125			
Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Asn	Ile	Leu	Cys	Lys	Ile	Val	Ile
	130					135					140				
Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr	Leu	Cys	Thr
145					150					155					160
Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val	Lys	Ala	Leu
				165					170					175	
Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Val	Asn	Val	Cys	Asn	Trp
			180					185					190		
Ile	Leu	Ser	Ser	Ala	Ile	Gly	Leu	Pro	Val	Met	Phe	Met	Ala	Thr	Thr
		195				200						205			
Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	Thr	Leu	Thr	Phe	Ser	His	Pro
	210					215					220				
Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	Ile	Cys	Val	Phe	Ile	Phe	Ala
225					230					235					240
Phe	Ile	Met	Pro	Val	Leu	Ile	Ile	Thr	Val	Cys	Tyr	Gly	Leu	Met	Ile
				245					250					255	
Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	Ser	Gly	Ser	Lys	Glu	Lys	Asp
			260					265					270		
Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	Val	Leu	Val	Val	Val	Ala	Val
		275					280					285			
Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	Ile	Tyr	Val	Ile	Ile	Lys	Ala
	290					295					300				
Leu	Ile	Thr	Ile	Pro	Glu	Thr	Thr	Phe	Gln	Thr	Val	Ser	Trp	His	Phe
305					310					315					320
Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	Cys	Leu	Asn	Pro	Val	Leu	Tyr
				325					330					335	
Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	Cys	Phe	Arg	Glu	Phe	Cys	Ile
			340					345					350		
Pro	Thr	Ser	Ser	Thr	Ile	Glu	Gln	Asn	Ser	Ala	Arg	Ile	Arg	Gln	
		355					360					365			
Asn	Thr	Arg	Glu	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg	Thr	Asn
	370					375					380				
His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	Thr	Ala	Pro	Leu	Pro		
385					390					395					

<210> 84
 <211> 405
 <212> PRT
 <213> Homo sapiens

<400> 84
 Met Asp Ser Gly Ala Val Pro Thr Asn Ala Ser Asn Cys Ile Asp Pro

1				5				10					15			
Phe	Thr	His	Pro	Ser	Ser	Cys	Ser	Pro	Ala	Pro	Ser	Pro	Ser	Ser	Trp	
			20					25					30			
Val	Asn	Phe	Ser	His	Leu	Glu	Gly	Asn	Leu	Ser	Asp	Pro	Cys	Gly	Pro	
		35					40					45				
Asn	Arg	Thr	Glu	Leu	Gly	Gly	Ser	Asp	Arg	Leu	Cys	Pro	Ser	Ala	Gly	
	50				55						60					
Ser	Pro	Ser	Met	Ile	Thr	Ala	Met	Val	Thr	Ala	Ile	Ile	Ile	Met	Ala	
65				70					75						80	
Leu	Tyr	Ser	Ile	Val	Cys	Val	Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	
			85					90					95			
Met	Tyr	Val	Ile	Val	Arg	Tyr	Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	
		100						105					110			
Tyr	Ile	Phe	Asn	Leu	Ala	Leu	Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	
		115					120					125				
Pro	Phe	Gln	Ser	Val	Asn	Tyr	Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	
	130				135						140					
Ile	Leu	Cys	Lys	Ile	Val	Ile	Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	
145				150					155						160	
Ser	Ile	Phe	Thr	Leu	Cys	Thr	Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	
			165					170					175			
Cys	His	Pro	Val	Lys	Ala	Leu	Asp	Leu	Arg	Thr	Pro	Arg	Asn	Ala	Lys	
		180					185					190				
Ile	Ile	Asn	Ile	Cys	Asn	Trp	Ile	Leu	Ser	Ser	Ala	Ile	Gly	Leu	Pro	
	195				200							205				
Val	Met	Phe	Met	Ala	Thr	Thr	Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	
	210				215						220					
Thr	Leu	Thr	Phe	Ser	His	Pro	Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	
225				230					235						240	
Ile	Cys	Val	Phe	Ile	Phe	Ala	Phe	Ile	Met	Pro	Ile	Leu	Ile	Ile	Thr	
		245						250					255			
Val	Cys	Tyr	Gly	Leu	Met	Ile	Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	
		260					265					270				
Ser	Gly	Ser	Lys	Glu	Lys	Asp	Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	
	275					280						285				
Val	Leu	Val	Val	Val	Ala	Val	Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	
	290				295						300					
Ile	Tyr	Val	Ile	Ile	Lys	Ala	Leu	Ile	Thr	Ile	Pro	Glu	Thr	Thr	Phe	
305				310					315						320	
Gln	Thr	Val	Ser	Trp	His	Phe	Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	
		325						330						335		
Cys	Leu	Asn	Pro	Val	Leu	Tyr	Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	
		340					345					350				
Cys	Phe	Arg	Glu	Phe	Cys	Ile	Pro	Thr	Ser	Ser	Thr	Ile	Glu	Gln	Gln	
	355				360							365				
Asn	Ser	Thr	Arg	Ile	Arg	Gln	Asn	Thr	Arg	Asp	His	Pro	Ser	Thr	Ala	
	370				375					380						
Asn	Thr	Val	Asp	Arg	Thr	Asn	His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	
385				390					395						400	
Thr	Thr	Pro	Leu	Pro												
				405												

<210> 85
 <211> 400
 <212> PRT
 <213> Homo sapiens

 <400> 85

Met	Asp	Ser	Ser	Ala	Ala	Pro	Thr	Asn	Ala	Ser	Asn	Cys	Thr	Asp	Ala	1	5	10	15
Leu	Ala	Tyr	Ser	Ser	Cys	Ser	Pro	Ala	Pro	Ser	Pro	Gly	Ser	Trp	Val	20	25	30	
Asn	Leu	Ser	His	Leu	Asp	Gly	Asn	Leu	Ser	Asp	Pro	Cys	Gly	Pro	Asn	35	40	45	
Arg	Thr	Asp	Leu	Gly	Gly	Arg	Asp	Ser	Leu	Cys	Pro	Pro	Thr	Gly	Ser	50	55	60	
Pro	Ser	Met	Ile	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile	Val	65	70	75	80
Cys	Val	Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile	Val	85	90	95	
Arg	Tyr	Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn	Leu	100	105	110	
Ala	Leu	Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser	Val	115	120	125	
Asn	Tyr	Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	Ile	Leu	Cys	Lys	Ile	130	135	140	
Val	Ile	Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr	Leu	145	150	155	160
Cys	Thr	Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val	Lys	165	170	175	
Ala	Leu	Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Ile	Asn	Val	Cys	180	185	190	
Asn	Trp	Ile	Leu	Ser	Ser	Ala	Ile	Gly	Leu	Pro	Val	Met	Phe	Met	Ala	195	200	205	
Thr	Thr	Lys	Tyr	Arg	Gln	Gly	Ser	Ile	Asp	Cys	Thr	Leu	Thr	Phe	Ser	210	215	220	
His	Pro	Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	Ile	Cys	Val	Phe	Ile	225	230	235	240
Phe	Ala	Phe	Ile	Met	Pro	Val	Leu	Ile	Ile	Thr	Val	Cys	Tyr	Gly	Leu	245	250	255	
Met	Ile	Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	Ser	Gly	Ser	Lys	Glu	260	265	270	
Lys	Asp	Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	Val	Leu	Val	Val	Val	275	280	285	
Ala	Val	Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	Ile	Tyr	Val	Ile	Ile	290	295	300	
Lys	Ala	Leu	Val	Thr	Ile	Pro	Glu	Thr	Thr	Phe	Gln	Thr	Val	Ser	Trp	305	310	315	320
His	Phe	Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	Cys	Leu	Asn	Pro	Val	325	330	335	
Leu	Tyr	Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	Cys	Phe	Arg	Glu	Phe	340	345	350	
Cys	Ile	Pro	Thr	Ser	Ser	Asn	Ile	Glu	Gln	Gln	Asn	Ser	Thr	Arg	Ile	355	360	365	
Arg	Gln	Asn	Thr	Arg	Asp	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg	370	375	380	
Thr	Asn	His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	Thr	Ala	Pro	Leu	Pro	385	390	395	400

<210> 86

<211> 400

<212> PRT

<213> Homo sapiens

<400> 86

Met Asp Ser Ser Ala Asp Pro Arg Asn Ala Ser Asn Cys Thr Asp Pro

1				5					10					15	
Phe	Ser	Pro	Ser	Ser	Met	Cys	Ser	Pro	Val	Pro	Ser	Pro	Ser	Ser	Trp
			20					25					30		
Val	Asn	Phe	Ser	His	Leu	Glu	Gly	Asn	Leu	Ser	Asp	Pro	Cys	Ile	Arg
		35					40					45			
Asn	Arg	Thr	Glu	Leu	Gly	Gly	Ser	Asp	Ser	Leu	Cys	Pro	Pro	Thr	Gly
	50				55						60				
Ser	Pro	Ser	Met	Val	Thr	Ala	Ile	Thr	Ile	Met	Ala	Leu	Tyr	Ser	Ile
65					70					75					80
Val	Cys	Val	Val	Gly	Leu	Phe	Gly	Asn	Phe	Leu	Val	Met	Tyr	Val	Ile
				85					90					95	
Val	Arg	Tyr	Thr	Lys	Met	Lys	Thr	Ala	Thr	Asn	Ile	Tyr	Ile	Phe	Asn
			100					105					110		
Leu	Ala	Leu	Ala	Asp	Ala	Leu	Ala	Thr	Ser	Thr	Leu	Pro	Phe	Gln	Ser
		115					120					125			
Val	Asn	Tyr	Leu	Met	Gly	Thr	Trp	Pro	Phe	Gly	Thr	Ile	Leu	Cys	Lys
	130					135					140				
Ile	Val	Ile	Ser	Ile	Asp	Tyr	Tyr	Asn	Met	Phe	Thr	Ser	Ile	Phe	Thr
145					150					155					160
Leu	Cys	Thr	Met	Ser	Val	Asp	Arg	Tyr	Ile	Ala	Val	Cys	His	Pro	Val
				165					170					175	
Lys	Ala	Leu	Asp	Phe	Arg	Thr	Pro	Arg	Asn	Ala	Lys	Ile	Ile	Asn	Val
			180					185					190		
Cys	Asn	Trp	Ile	Leu	Ser	Ser	Ala	Ile	Gly	Leu	Pro	Val	Met	Phe	Met
	195						200					205			
Ala	Thr	Thr	Lys	Tyr	Arg	Asn	Gly	Ser	Ile	Asp	Cys	Ala	Leu	Thr	Phe
	210					215					220				
Ser	His	Pro	Thr	Trp	Tyr	Trp	Glu	Asn	Leu	Leu	Lys	Ile	Cys	Val	Phe
225					230					235					240
Ile	Phe	Ala	Phe	Ile	Met	Pro	Val	Leu	Ile	Ile	Thr	Val	Cys	Tyr	Gly
			245						250					255	
Leu	Met	Ile	Leu	Arg	Leu	Lys	Ser	Val	Arg	Met	Leu	Ser	Gly	Ser	Lys
		260						265					270		
Glu	Lys	Asp	Arg	Asn	Leu	Arg	Arg	Ile	Thr	Arg	Met	Val	Leu	Val	Val
	275						280					285			
Val	Ala	Val	Phe	Ile	Val	Cys	Trp	Thr	Pro	Ile	His	Ile	Tyr	Val	Ile
	290					295					300				
Ile	Lys	Ala	Leu	Ile	Thr	Ile	Pro	Glu	Thr	Thr	Phe	Gln	Thr	Val	Ser
305					310					315					320
Trp	His	Phe	Cys	Ile	Ala	Leu	Gly	Tyr	Thr	Asn	Ser	Cys	Leu	Asn	Pro
			325						330					335	
Val	Tyr	Ala	Phe	Leu	Asp	Glu	Asn	Phe	Lys	Arg	Cys	Phe	Arg	Glu	Phe
		340						345					350		
Cys	Ile	Pro	Thr	Ser	Ser	Thr	Ile	Glu	Gln	Gln	Asn	Ser	Ala	Arg	Ile
		355				360						365			
Arg	Gln	Asn	Thr	Arg	Asp	His	Pro	Ser	Thr	Ala	Asn	Thr	Val	Asp	Arg
	370					375					380				
Thr	Asn	His	Gln	Leu	Glu	Asn	Leu	Glu	Ala	Glu	Thr	Ala	Pro	Leu	Pro
385					390					395					400

<210> 87
 <211> 383
 <212> PRT
 <213> Homo sapiens

<400> 87
 Met Glu Thr Ser Gly Asn Ile Ser Asp Phe Leu Tyr Pro Leu Ser Asn
 1 5 10 15